

Application No. 10/071,722
Response dated January 9, 2006
Reply to Office Action dated September 8, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Twice Amended). An orthotic strut component for an orthosis, comprising the combination of a ductile metallic tube having a transverse cross-section of elongate shape and an internal core ~~of substantially uncured plastics and fibre composite material which is a close fit within the tube which comprises a rolled-up, substantially uncured sheet of pre-impregnated fibre and plastics composite material within the tube, the fibres of the sheet being substantially unidirectional and running lengthwise of the tube,~~ wherein the tube is at least 300mm in length and has an internal cross-sectional area which is no more than Kc^2 , where c is the internal circumference of the tube and K is a number less than or equal to 0.06.
2. (Previously Presented). An orthotic strut component according to claim 1, wherein the tube is made of annealed aluminium alloy and has a wall thickness in the range of from 0.5mm to 2.0mm.
3. (Previously Presented). An orthotic strut component according to claim 1, wherein the cross-section of the tube is of an oblong shape having substantially straight sides and rounded ends, the ratio of the cross-section length to its width being in the range of from 2.5 to 4.0.
4. (Previously Presented). An orthotic strut component according to claim 1, wherein the cross-section of the strut is substantially constant over the major part of the length of the strut component, and the thickness of the strut over the major part is in the range of from 4mm to 12mm.

5. (Previously Presented). An orthotic strut component according to claim 1, wherein the cross-section of the tube is constant over the major part of its length and is of an oblong shape having straight parallel sides and rounded ends, the cross-section length being in the range of from 15mm to 40mm.

6. (Previously Presented). An orthotic strut component according to claim 1, wherein the value of K is in the range of from 0.04 to 0.06.

7. (Previously Presented). An orthotic strut component according to claim 1, wherein the internal core comprises an inner kernel made of a heat-activated expansion agent extending lengthwise through the strut surrounded by the said plastics and fibre composite material.

8. (Previously Presented). An orthotic strut component according to claim 7, wherein the expansion agent is a foaming agent which is formed as one or more longitudinally extending strings of material such as an epoxy resin.

9. (Previously Presented). An orthosis comprising at least one strut component as claimed in claim 1, the core having been cured.

10. – 14. (Cancelled).

15. (Previously Presented). An orthotic strut component according to claim 1, wherein K is a number less than or equal to 0.05.

16. (Previously Presented). An orthotic strut component according to claim 1, wherein the internal cross-sectional area of the tube is substantially fully occupied by the internal core.

17. (Previously Presented). An orthotic strut component according to claim 16, wherein the internal core comprises an inner kernel made of a heat-activated expansion agent extending lengthwise through the strut surrounded by said plastics and fibre composite material.

18. (Previously Presented). An orthotic strut component according to claim 1, wherein the cross-section of the tube is of an oblong shape having substantially straight parallel sides, the cross-section length being in the range of from 15mm to 40mm.

19. (Amended). An orthosis comprising a strut component in the form of a combination of a ductile metallic tube having a cross-section of elongate shape and an internal core ~~of cured plastics and fibre composite material which is a close fit within the tube which comprises a rolled-up and cured sheet of pre-impregnated fibre and plastics composite material within the tube, the fibres of the sheet being substantially unidirectional and running lengthwise of the tube,~~ wherein the tube is at least 300mm in length and has an internal cross-sectional area which is no more than Kc^2 , where c is the internal circumference of the tube and K is a number less than or equal to 0.06.

20. (Previously Presented). An orthosis according to claim 19, wherein the strut component is a bent component.